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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/600,355 | 06/23/2003 | Ming-Chang Wang | 2019-0200P | 7100 |
| 2292 7590 05/30/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | EXAMINER DHARIA, PRABODH M | |
| | | | ART UNIT 2629 | PAPER NUMBER |
| | | | NOTIFICATION DATE 05/30/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/600,355

Applicant(s)

WANG ET AL.

Examiner

Prabodh M. Dharja

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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1. **Status:** Receipt is acknowledged of papers submitted on June 23, 2003 under amendments, which have been placed of record in the file. Claims 1-6 are pending in this action. Please all the replies and correspondence should be addressed to examiner's new art unit 2629.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al. (US 6,756,974) in view of Narushima et al. (US 6,987,540) and Bormann, David S. et al. (US 2002/0087898 A1).

Regarding Claim 1, Nakajima et al. teaches a computer device capable of displaying television programs without the need of running an operating system in advance (Col. 7, Lines 33-37, Col. 7, Lines 33-37, 46-54, Col. 8, Lines 30-41, 54-58), comprising: a computer keyboard unit (see figure 2, Col. 2, Lines 10-15) comprising a keyboard controller (figure 2, Col. 2, Lines 16-23), a low-voltage differential signal (LVDS) transmitter (Col. 10, Lines 3-8), wherein the LVDS transmitter has an output end connected to a liquid crystal display (LCD) monitor (Col. 10, Lines 3-19); a television tuner module installed in the computer keyboard unit (Col. 8, Lines 19-24) and connected to the keyboard controller (Col. 2, Lines 10-23, figure 2), wherein the television tuner module is connected to an image processor (please see figure 6-10, Col. 7, Lines

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33-37, Col. 10, Lines 3-27), which is disposed between the television tuner module (Item #103, Figures 6-10, Col. 7, Lines 33-37, Col. 10, Lines 3-27) and the LVDS transmitter (Item #103, Figures 6-10, Col. 7, Lines 33-37, Col. 10, Lines 3-27), wherein television tuner module is used to transform inputted audio/video signals into digital image signals (Item #103, Figures 6-10, Col. 7, Lines 33-37, Col. 10, Lines 3-27 Video signals image received through tune from broadcast inherits video and audio).

However, Nakajima et al. fails to disclose television tuner module is used to transform inputted audio/video signals into digital image signals and analog audio signals, then, the television tuner module outputs the digital image signals, and analog audio signals, respectively, to the image processor, and the LVDS transmitter, after this, the LVDS transmitter sends low-voltage differential signals to the LCD monitor the analog audio signals are sent to the audio amplifier and then to the speaker; the television tuner module has an output end connected to an audio amplifier having an output end connected to a speaker.

However, Narushima et al. television tuner module is used to transform inputted audio/video signals into digital image signals (Col. 9, Lines 19-25, Col. 10, Lines 40-45) and analog audio signals (Col. 14, Lines 41-57 analog audio signals are well known in the art), then, the television tuner module outputs the digital image signals (Col. 14, Lines 30-40), and analog audio signals, respectively, to the image processor (Col. 14, Lines 41-57 analog audio signals are well known in the art), and the LVDS transmitter, after this, the LVDS transmitter sends low-voltage differential signals to the LCD monitor (Col. 14, Lines 18-40, Col. 11, Lines 8-36) the analog audio signals are sent to the audio amplifier and then to the speaker (Col. 14, Lines 41-57 analog audio signals are well known in the art); the television tuner module has an output end

connected to an audio amplifier having an output end connected to a speaker (Col. 14, Lines 18-43).

The reason to combine is to be able to receive digital broadcasting by way of digital transmission by a tuner for television programming. Digital television broadcasting can additionally provide various information services referred to as SI (Service Information) in addition to the transmission of ordinary televisions signals. Services such as EPGs (Electronic Program Guides) can be provided by means of SI signals and displayed on display.

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate teaching of Narushima et al. in teaching of Nakajima et al. to be able to have user friendly display device to be able to receive digital broadcasting to be able to display not only news but also various programs simultaneously.

However, Nakajima et al. fails a computer device capable of displaying television programs without the need of running an operating system in advance and a power switching module connected to the keyboard controller to turn on partial or overall work power; and a remote control signal receiver connected to the keyboard controller, wherein the remote control signal receiver is used to receive remote, control, signals sent from a remote control to turn on the power switching module, the keyboard controller, the television tuner module, the image processor, the LVDS transmitter, the LCD monitor, the audio amplifier, and the speaker.

However, Bormann, David S. et al. teaches a computer device capable of displaying television programs without the need of running an operating system in advance (please see abstract and page 1, paragraphs 15-17 teaches the only power of the sub system like tuner and keyboard could be turned on so that TV programming could be watched without having

operating system running) and a power switching module connected to the keyboard controller to turn on partial or overall work power (page 1, paragraph 15); and a remote control signal receiver connected to the keyboard controller, wherein the remote control signal receiver is used to receive remote, control, signals sent from a remote control (page 2, paragraph 21, Lines 10-12, page 2, paragraphs 24,26) to turn on the power switching module, the keyboard controller, the television tuner module, the image processor, the LVDS transmitter, the LCD monitor, the audio amplifier, and the speaker (page 1, paragraphs 15,17, page 2, paragraphs 22,26,27, page 3, paragraph 31).

The reason to combine a method and apparatus facilitating direct access to a serial Advanced Technology Attachment (ATA) device by an autonomous subsystem in the absence of the main operating system (OS); by way of controlling power. The power to sub system like tuner is turned on for user to see television programming without having operating system being running.

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate teaching of Bormann, David S. et al. in teaching of Nakajima et al. to be able to have user friendly display device with appropriate power control to control operation of display apparatus and peripherals to reduce power consumption.

Regarding Claim 2, Bormann, David S. et al. teaches the computer keyboard unit comprises an inner circuit comprising a central processing unit, which communicates with a north bridge chipset, which is connected with a south bridge chipset and an image-accelerating

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controller, wherein the south bridge chipset is connected to the keyboard controller and an audio synthesizer, which is connected to the television tuner module and the audio amplifier, wherein the image accelerating controller has an output end connected to the image processor (page 1, paragraphs 15,17, page 2, paragraphs 21, 22,26,27, page 3, paragraph 31, Microsoft window interface are well known in the art when S0 switch is connected whole system is on, Bormann, David S. et al. also teaches keyboard being a sophisticated remote control device obviously it would have pluralities of ICS, please also see figures 1,2,3,4 and 7).

Regarding Claim 3, Bormann, David S. et al. teaches the computer keyboard unit comprises a computer control switch, and when the computer control switch is on, the television tuner module, the image processor, the LVDS transmitter, the LCD monitor, the audio amplifier, the keyboard controller, the speaker, the audio synthesizer, the south bridge chipset, the north bridge chipset, the central processing unit, and the image accelerating controller are powered by output voltage of the television tuner module (page 1, paragraphs 15,17, page 2, paragraphs 21, 22,26,27, page 3, paragraph 31, Microsoft window interface are well known in the art when S0 switch is connected whole system is on, Bormann, David S. et al. also teaches keyboard being a sophisticated remote control device obviously it would have pluralities of ICS), and wherein one can execute an application program through Windows interface (page 1, paragraphs 15,17, page 2, paragraphs 22,26,27, page 3, paragraph 31, Microsoft window interface are well known in the art).

Regarding Claim 4, Nakajima et al. teaches a computer device capable of displaying television programs without the need of running an operating system in advance (Col. 7, Lines 33-37, Col. 7, Lines 33-37, 46-54, Col. 8, Lines 30-41, 54-58), comprising: a computer keyboard unit (see figure 2, Col. 2, Lines 10-15) comprising a keyboard controller (figure 2, Col. 2, Lines 16-23), a low-voltage differential signal (LVDS) transmitter (Col. 10, Lines 3-8), wherein the LVDS transmitter has an output end connected to a liquid crystal display (LCD) monitor (Col. 10, Lines 3-19); a television tuner module installed in the computer keyboard unit (Col. 8, Lines 19-24) and connected to the keyboard controller (Col. 2, Lines 10-23, figure 2), wherein the television tuner module is connected to an image processor (please see figure 6-10, Col. 7, Lines 33-37, Col. 10, Lines 3-27), which is disposed between the television tuner module (Item #103, Figures 6-10, Col. 7, Lines 33-37, Col. 10, Lines 3-27) and the LVDS transmitter (Item #103, Figures 6-10, Col. 7, Lines 33-37, Col. 10, Lines 3-27), wherein television tuner module is used to transform inputted audio/video signals into digital image signals (Item #103, Figures 6-10, Col. 7, Lines 33-37, Col. 10, Lines 3-27 Video signals image received through tune from broadcast inherits video and audio).

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However, Narushima et al. television tuner module is used to transform inputted audio/video signals into digital image signals (Col. 9, Lines 19-25, Col. 10, Lines 40-45) and analog audio signals (Col. 14, Lines 41-57 analog audio signals are well known in the art), then, the television tuner module outputs the digital image signals (Col. 14, Lines 30-40), and analog audio signals, respectively, to the image processor (Col. 14, Lines 41-57 analog audio signals are well known in the art), and the LVDS transmitter, after this, the LVDS transmitter sends low-voltage differential signals to the LCD monitor (Col. 14, Lines 18-40, Col. 11, Lines 8-36) the analog audio signals are sent to the audio amplifier and then to the speaker (Col. 14, Lines 41-57 analog audio signals are well known in the art); the television tuner module has an output end connected to an audio amplifier having an output end connected to a speaker (Col. 14, Lines 18-43).

The reason to combine is to be able to receive digital broadcasting by way of digital transmission by a tuner for television programming. Digital television broadcasting can additionally provide various information services referred to as SI (Service Information) in addition to the transmission of ordinary televisions signals. Services such as EPGs (Electronic Program Guides) can be provided by means of SI signals and displayed on display.

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate teaching of Narushima et al. in teaching of Nakajima et al. to be able to have user friendly display device to be able to receive digital broadcasting to be able to display not only news but also various programs simultaneously.

However, Nakajima et al. fails a computer device capable of displaying television programs without the need of running an operating system in advance and a power switching

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module connected to the keyboard controller to turn on partial or overall work power; and a remote control signal receiver connected to the keyboard controller, wherein the remote control signal receiver is used to receive remote, control, signals sent from a remote control to turn on the power switching module, the keyboard controller, the television tuner module, the image processor, the LVDS transmitter, the LCD monitor, the audio amplifier, and the speaker.

However, Bormann, David S. et al. teaches a computer device capable of displaying television programs without the need of running an operating system in advance (please see abstract and page 1, paragraphs 15-17 teaches the only power of the sub system like tuner and keyboard could be turned on so that TV programming could be watched without having operating system running) and a power switching module connected to the keyboard controller to turn on partial or overall work power (page 1, paragraph 15); and a remote control signal receiver connected to the keyboard controller, wherein the remote control signal receiver is used to receive remote, control, signals sent from a remote control (page 2, paragraph 21, Lines 10-12, page 2, paragraphs 24,26) to turn on the power switching module, the keyboard controller, the television tuner module, the image processor, the LVDS transmitter, the LCD monitor, the audio amplifier, and the speaker (page 1, paragraphs 15,17, page 2, paragraphs 22,26,27, page 3, paragraph31).

The reason to combine a method and apparatus facilitating direct access to a serial Advanced Technology Attachment (ATA) device by an autonomous subsystem in the absence of the main operating system (OS); by way of controlling power. The power to sub system like tuner is turned on for user to see television programming without having operating system being running.

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate teaching of Bormann, David S. et al. in teaching of Nakajima et al. to be able to have user friendly display device with appropriate power control to control operation of display apparatus and peripherals to reduce power consumption.

Regarding Claim 5, Bormann, David S. et al. teaches the computer keyboard unit comprises an inner circuit comprising a central processing unit, which communicates with a north bridge chipset, which is connected with a south bridge chipset and an image-accelerating controller, wherein the south bridge chipset is connected to the keyboard controller and an audio synthesizer, which is connected to the television tuner module and the audio amplifier, wherein the image accelerating controller has an output end connected to the image processor (page 1, paragraphs 15,17, page 2, paragraphs 21, 22,26,27, page 3, paragraph 31, Microsoft window interface are well known in the art when S0 switch is connected whole system is on, Bormann, David S. et al. also teaches keyboard being a sophisticated remote control device obviously it would have pluralities of ICS, please also see figures 1,2,3,4 and 7).

Regarding Claim 6, Bormann, David S. et al. teaches the computer keyboard unit comprises a computer control switch, and when the computer control switch is on, the television tuner module, the image processor, the LVDS transmitter, the LCD monitor, the audio amplifier, the keyboard controller, the speaker, the audio synthesizer, the south bridge chipset, the north bridge chipset, the central processing unit, and the image accelerating controller are powered by output voltage of the television tuner module (page 1, paragraphs 15,17, page 2, paragraphs 21,

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22,26,27, page 3, paragraph 31, Microsoft window interface are well known in the art when S0 switch is connected whole system is on, Bormann, David S. et al. also teaches keyboard being a sophisticated remote control device obviously it would have pluralities of ICS), and wherein one can execute an application program through Windows interface (page 1, paragraphs 15,17, page 2, paragraphs 22,26,27, page 3, paragraph 31, Microsoft window interface are well known in the art).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Borman et al. (US 7,069,456 B2) Method and apparatus facilitating direct access to a serial ATA device by an autonomous subsystem.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668. The examiner can normally be reached on M-F 8AM to 5PM.

6. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

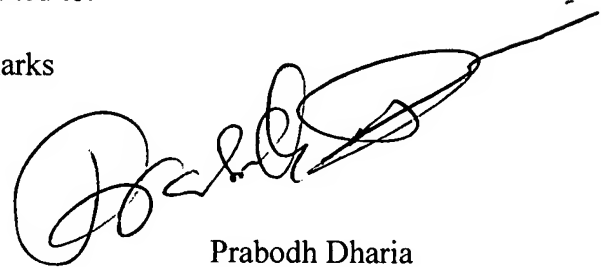
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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

A handwritten signature in black ink, appearing to read 'Prabodh Dharia', is written over a horizontal line.

Prabodh Dharia

Partial Signatory Authority

AU 2629

May 24, 2007